

Amendments to the Claims:

The following is a complete set of claims pending in this patent application, replacing all prior versions:

- 1 Claim 1 (currently amended): A catalyst bed for decomposition of monopropellant fuel using a
2 ~~transition~~ transitional metal catalyst over which the fuel is made to flow, the bed comprising:
3 a plurality of thin metal plates in a stacked contiguous relation,. each such plate having a
4 surface of catalytic material and a plurality of flow-through holes of selected size and
5 location for flow of said fuel axially through said stacked plates, said flow-through holes
6 being axially offset from plate to plate to promote lateral flow of said fuel between adjacent
7 plates, at least a portion of each such plate on a downstream side being etched to direct said
8 permit lateral flow in all directions of said fuel between said plates flow-through holes of
9 adjacent plates.

- 1 Claim 2 (original): The catalyst bed recited in claim 1 wherein said plurality of plates comprises
2 a plurality of groups of said plates, each said group being separated by a metering plate having
3 flow-through holes that provide reduced open area compared to the flow-through holes of said
4 adjacent groups of said plates.

- 1 Claim 3 (original): The catalyst bed recited in claim 2 wherein each said metering plate which
2 is positioned more downstream of an upstream metering plate comprises larger flow-through
3 holes than said upstream metering plate.

- 1 Claim 4 (canceled)

- 1 Claim 5 (original): The catalyst bed recited in claim 1 wherein said etched downstream side of
2 each said plate comprises unetched portions forming support columns for supporting each said
3 plate on an adjacent said plate.

1 Claim 6 (original): The catalyst bed recited in claim 1 wherein said metal plates are
2 substantially circular.

1 Claim 7 (original): The catalyst bed recited in claim 1 wherein said metal plates are bonded to
2 one another to form a monolithic stack.

1 Claim 8 (currently amended): A catalytic catalyst converter for promoting the decomposition of
2 a liquid fuel into a gas, the converter comprising:
3 a plurality of thin metal plates having a surface formed of a catalyst material and stacked
4 axially along a flow path of said fuel from upstream to downstream; each said plate having a
5 plurality of flow-through holes leading from its upstream surface to its downstream surface,
6 said flow-through holes being axially offset from plate to plate to promote lateral flow of said
7 fuel between adjacent plates, the downstream surface of each said plate being at least
8 partially removed to promote said lateral flow of said fuel between each pair of adjacent
9 plates in all directions between flow-through holes of adjacent plates.

1 Claim 9 (currently amended): The catalytic catalyst converter recited in claim 8 [[1]] wherein
2 said plurality of plates comprises a plurality of groups of said plates, each said group being
3 separated from adjacent said groups by a metering plate having flow-through holes that provide
4 reduced open area as compared to the flow-through holes of said adjacent groups of said plates.

1 Claim 10 (currently amended): The catalytic catalyst converter recited in claim 9 wherein each
2 said metering plate which is positioned more downstream of an upstream metering plate [[,]]
3 comprises larger flow-through holes than said upstream metering plate.

1 Claim 11 (canceled)

1 Claim 12 (currently amended): The catalytic catalyst converter recited in claim 8 wherein said
2 etched downstream side of each said plate comprises unetched portions forming support columns
3 for supporting each said plate on an adjacent said plate.

1 Claim 13 (currently amended): The catalytic catalyst converter recited in claim 8 wherein said
2 metal plates are substantially circular.

1 Claim 14 (currently amended): The catalytic catalyst converter recited in claim 8 wherein said
2 metal plates are bonded to one another to form a monolithic stack.

1 Claim 15 (currently amended): A catalyst bed comprising:
2 a generally cylindrical array of catalyst material the axis of which is substantially parallel to
3 the direction of flow of a fluid through said bed, the catalyst material being configured as the
4 surface material of a plurality of stacked, contiguous, thin metal plates having axial flow-
5 through holes of selected size and location to promote uniform flow and contact of said fluid
6 with said catalyst material, said flow-through holes being axially offset from plate to plate to
7 promote lateral flow of said fuel between adjacent plates, at least a portion of each said thin
8 metal plate on a downstream side is removed to provide a gap between adjacent plates to
9 promote said lateral flow in all directions between flow-through holes of adjacent plates.

1 Claim 16 (canceled)

1 Claim 17 (original): The catalyst bed recited in claim 15 wherein said plates are segregated into
2 a plurality of groups of said plates and wherein each said group is separated from an adjacent
3 group by a metering plate having flow-through holes the total area of which is less than the total
4 area of the flow-through holes in said plates of said groups.

1 Claim 18 (original): The catalyst bed recited in claim 17 wherein each said metering plate
2 which is positioned more downstream of an upstream metering plate comprises larger flow-
3 through holes than said upstream metering plate.

1 Claim 19 (canceled)

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1 Claim 20 (previously presented): The catalyst bed recited in claim 15 wherein said removed
2 portion of each said plate comprises unremoved portions forming support columns for supporting
3 each said plate on an adjacent said plate.

1 Claim 21 (original): The catalyst bed recited in claim 15 wherein each said plate is
2 characterized by an open area ratio which is defined as the combined area of the flow-through
3 holes divided by the total area of the plate and wherein the open area ratio of said plates
4 generally increases along said direction of flow.